

Comparison of struct and class

struct

```
struct Time
{
    int hour = 0;
    int minute = 0;
    int second = 0;
};

void set( Time&, int, int, int );
void print( Time t );
```

class

```
class Time
{
public:
    int hour;
    int minute;
    int second;
    Time(); // constructor
    void set( int, int, int );
    void print();
};
```

main()

struct

```
int main()
{
    Time t;

    print( t );

    set( t, 13, 27, 6 );

    print( t );
}
```

class

```
int main()
{
    Time t;

    t.print();

    t.set( 13, 27, 6 );

    t.print();
}

Time::Time()
{
    hour = minute = second = 0;
}
```

setTime

struct

```
void setTime( Time &t, int h, int m, int s )
{
    t.hour = ( h >= 0 && h < 24 ) ? h : 0;
    t.minute = ( m >= 0 && m < 60 ) ? m : 0;
    t.second = ( s >= 0 && s < 60 ) ? s : 0;
}
```

class

```
void Time::set( int h, int m, int s )
{
    hour = ( h >= 0 && h < 24 ) ? h : 0;
    minute = ( m >= 0 && m < 60 ) ? m : 0;
    second = ( s >= 0 && s < 60 ) ? s : 0;
}
```

print

struct

```
void print( Time t )
{
    cout << setfill( '0' )
          << setw( 2 ) << t.hour << ":"
          << setw( 2 ) << t.minute << ":"
          << setw( 2 ) << t.second << endl << endl;
}
```

class

```
void Time::print()
{
    cout << setfill( '0' )
          << setw( 2 ) << hour << ":"
          << setw( 2 ) << minute << ":"
          << setw( 2 ) << second << endl << endl;
}
```

```

int main()
{
    Time t;
    t.print();
    t.set( 13, 27, 6 );
    t.print();
}

```

```

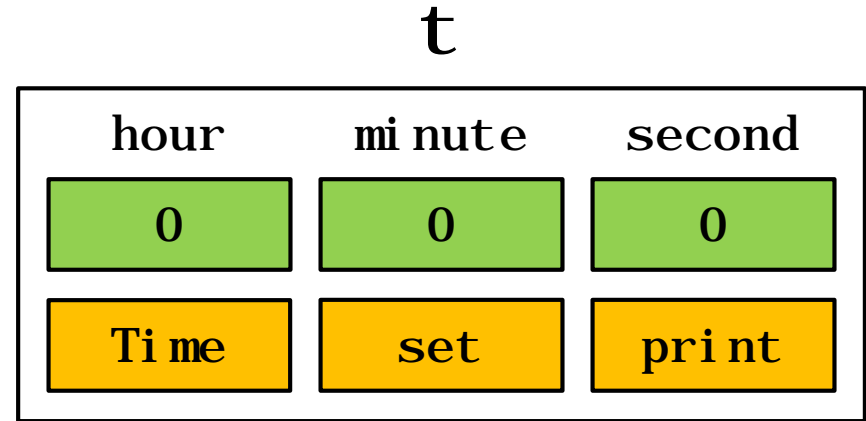
Time::Time()
{
    hour = minute = second = 0;
}

```

```

void Time::set( int h, int m, int s )
{
    hour = ( h >= 0 && h < 24 ) ? h : 0;
    minute = ( m >= 0 && m < 60 ) ? m : 0;
    second = ( s >= 0 && s < 60 ) ? s : 0;
}

```



Output

```

int main()
{
    Time t;
    t.print();
    t.set( 13, 27, 6 );
    t.print();
}

```

```

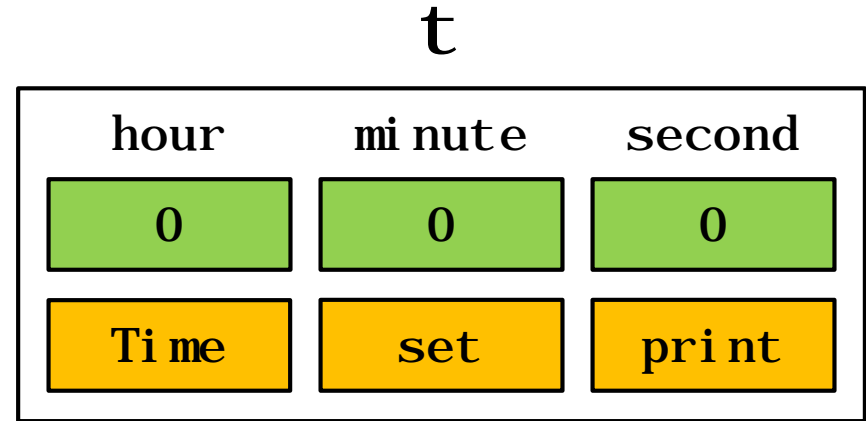
Time::Time()
{
    hour = minute = second = 0;
}

```

```

void Time::set( int h, int m, int s )
{
    hour = ( h >= 0 && h < 24 ) ? h : 0;
    minute = ( m >= 0 && m < 60 ) ? m : 0;
    second = ( s >= 0 && s < 60 ) ? s : 0;
}

```



00: 00: 00

Output

```

int main()
{
    Time t;
    t.print();
    t.set( 13, 27, 6 );
    t.print();
}

```

```

Time::Time()
{
    hour = minute = second = 0;
}

```

```

void Time::set( int h, int m, int s )
{
    hour = ( h >= 0 && h < 24 ) ? h : 0;
    minute = ( m >= 0 && m < 60 ) ? m : 0;
    second = ( s >= 0 && s < 60 ) ? s : 0;
}

```

t

hour	minute	second
13	27	6
Time	set	print

00:00:00

Output

```

int main()
{
    Time t;
    t.print();
    t.set( 13, 27, 6 );
    t.print();
}

```

```

Time::Time()
{
    hour = minute = second = 0;
}

```

```

void Time::set( int h, int m, int s )
{
    hour = ( h >= 0 && h < 24 ) ? h : 0;
    minute = ( m >= 0 && m < 60 ) ? m : 0;
    second = ( s >= 0 && s < 60 ) ? s : 0;
}

```

t

hour	minute	second
13	27	6
Time	set	print

00:00:00

13:27:06

Output

print

struct

```
void print( Time t )
{
    cout << setfill( '0' )
          << setw( 2 ) << t.hour << ":"
          << setw( 2 ) << t.minute << ":"
          << setw( 2 ) << t.second << endl << endl;
}
```

class

```
void Time::print()
{
    cout << setfill( '0' )
          << setw( 2 ) << hour << ":"
          << setw( 2 ) << minute << ":"
          << setw( 2 ) << second << endl << endl;
}
```